

REMARKS

The Office Action mailed May 30, 2006, has been reviewed and carefully considered. Claims 1, 7, 17, 18, 21 and 23 have been amended. Claims 1-2, 5, 8, 11, 12, 14, 17-18, 21 and 23 are pending in the application.

In paragraph 3 on page 2 of the Office Action, claims 1, 2 and 5 were rejected under 35 U.S.C. § 101. In paragraph 4 on page 3 of the Office Action, claims 17, 18 and 21 were rejected under 35 U.S.C. § 101.

Applicants respectfully traverse the rejections, but in the interest of expediting prosecution have amended claims 1 and 17 to overcome the rejection.

In paragraph 6 on page 3 of the Office Action, claim 17, 18 and 21 were rejected under § 112, second paragraph, as being indefinite.

Applicants respectfully traverse the rejection, but in the interest of expediting prosecution have amended claims 17, 18 and 21 to overcome the rejection.

In paragraph 8 on page 4 of the Office Action, claims 1-2, 7-8, 17-18 and 23 were rejected under § 103(a) as being unpatentable over Curry in view of Allen. In paragraph 9 on page 8 of the Office Action, claims 2, 8 and 18 were rejected under § 103(a) as being unpatentable over Curry and Allen in further view of obvious engineering design choices. In paragraph 10 on page 10 of the Office Action, claim 13 was rejected under § 103(a) as being unpatentable over Curry and Allen in further view of Vaswani.

Applicants respectfully traverse the rejections.

In independent claims 1, 7 and 21, an asymmetrical spot function is defined that combines two functions selected to provide a predetermined spot shape for use in a halftone cell. The spot function is scaled according to grayscale level using a parameterized spot radius scaling

function that varies according to a value of a first and second spot function ordinate and a shape changing scaling function based on a gray level for the spot.

In contrast, Curry merely discloses a method for rotating non-rotationally symmetric halftone dots, such as ellipse, and for shifting the center of rotated ellipses, for example, to a new point. Curry does not disclose defining a spot function that combines two functions selected to provide asymmetrically changing of the shape of a spot for use in a halftone cell. Rather, Curry appears to change the shape of halftone dots by setting their rotation, their center position and symmetrically scaling according to whether the dot meets a gray level.

Curry also does not suggest scaling the spot function according to grayscale levels using a parameterized spot radius scaling function that varies according to a value of a first and second spot function ordinate and an asymmetric shape changing scaling function based on a gray level for the spot. The independent claims of the present application provide changes to the shape of the spots in the intermediate gray levels in an asymmetric manner to reduce the artifacts.

Accordingly, independent claims 1, 7, 17 and 23 are patentable over Curry.

Allan et al. fail to overcome the deficiencies of Curry. Allan et al. merely describes the selection of an imaging parameter that may include spot size, spot shape and spot ellipticity. However, Allan et al. fail to suggest defining a spot function that combines two functions selected to provide asymmetrically changing of the shape of a spot for use in a halftone cell. Allan et al. are completely silent with regard to asymmetrically changing of the shape of a spot.

Allan et al. also do not suggest scaling the spot function according to grayscale levels using a parameterized spot radius scaling function that varies according to a value of a first and second spot function ordinate and an asymmetric shape changing scaling function based on a

gray level for the spot. Again, Allan et al. are completely silent regarding using an asymmetric shape changing scaling function based on a gray level for the spot.

Accordingly, Curry and Allan et al., alone or in combination, fail to disclose, teach or suggest the elements recited in independent claims 1, 7, 17 and 23 as amended.

Vaswani fails to overcome the deficiencies of Curry and Allan et al. Vaswani is merely cited as teaching the use of a hardware card for performing graphics processing. Vaswani fails to suggest defining a spot function that combines two functions selected to provide asymmetrically changing of the shape of a spot for use in a halftone cell. As with Curry and Allan et al., Vaswani is also completely silent with regard to asymmetrically changing of the shape of a spot.

In addition, Vaswani also fail to suggest defining a spot function that combines two functions selected to provide asymmetrically changing of the shape of a spot for use in a halftone cell. Again, Vaswani is completely silent with regard to asymmetrically changing of the shape of a spot.

Accordingly, Curry, Allan et al., and Vaswani, alone or in combination, fail to disclose, teach or suggest the elements recited in independent claims 1, 7, 17 and 23 as amended.

Dependent claims 2, 5, 8, 11, 13, 14, 18 and 21 are also patentable over the references, because they incorporate all of the limitations of the corresponding independent claims 1, 7 and 17, respectively. Further dependent claims 2, 5, 8, 11, 13, 14, 18 and 21 recite additional novel elements and limitations. Applicants reserve the right to argue independently the patentability of these additional novel aspects. Therefore, Applicants respectfully submit that dependent claims 2, 5, 8, 11, 13, 14, 18 and 21 are patentable over the cited references.

On the basis of the above amendments and remarks, it is respectfully submitted that the claims are in immediate condition for allowance. Accordingly, reconsideration of this application and its allowance are requested.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Attorney for Applicant, David W. Lynch, at 423-757-0264.

Respectfully submitted,

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